

Amendments to the Specification

Please replace the paragraph at page 3, lines 12-19 of the specification with the following paragraph:

Reaction gases pass through tubes 2 where production of ethylene oxide takes place and upon exiting tubes 2 the gases pass to exit head 6 and then to tubes 8 of exchanger 7 and are immediately cooled to prevent further oxidation and isomerization. A cooling fluid is introduced to the shell side of cooler 7 via line 15 and removed via line 16. Water is an appropriate and preferred cooling fluid. Cooled [reaction] product gases exit cooler 7 via line 17 and are treated in a conventional fashion for the recovery of product and recycle of various components.

Please replace the paragraph at page 5, lines 11-21 of the specification with the following paragraph:

Essential to the assembly of the invention is the provision of a heat exchanger integral to the exit head of the tubular reactor with an opening in the exit head 6 around which the heat exchanger is affixed as by welding. In the drawing integrally connected heat exchanger is designated as heat exchanger 7. Generally the heat exchanger can range in diameter from about 4 feet to 8 feet and contains tubes supported by upper and lower tube sheets, the tubes ranging from 800 to about 3000 in number and from about 1 inch to about 1.75 inches in outside diameter. A heat exchange fluid is provided for the cooling of the heat exchanger tubes in order to rapidly reduce the temperature of the reaction

mixture to a point below which further oxidation and/or the production of various by-products takes place. Preferably the heat exchanger fluid is water.

Please replace the paragraph at page 6, line 22 – page 7, line 7 with the following paragraph:

Generally speaking the reaction gases which exit from reactor 1 through head 6 are at a temperature in the range of 420° F to 540° F. In accordance of use of the assembly of the present invention, these gases are almost instantly cooled to below the temperature at which further reaction takes place in heat exchanger 7, i.e. to 420° F or lower. The reaction gases enter heat exchanger 7 at essentially the exit reaction temperature from reactor 1 and exit heat exchanger 7 by means of heat exchanger exit head 11 via line 17. In accordance with the practice of the invention, the reaction gas mixture exiting via line 17 is treated in accordance with known procedures for the separation and recovery of product and recycle of components of the mixture such as unreacted ethylene, oxygen and ballast gas.